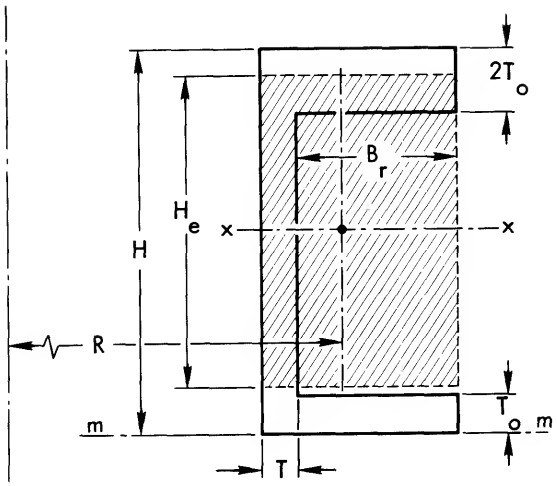

Fig. 33.12 Section details for equivalent depth calculation.

A view of the compound flange with the main flange ring, backup ring, rectangular ribs, and the triangular gussets is given in Fig. 33.13. Appropriate size and location of the flange reinforcement should be determined on the basis of hub, gusset, and flange stresses. The equivalent depth of the ribbed flange H_e can be used in conjunction with such formulas as those given by Eqs. (33.10), (33.12), or (33.13). When the backup ring is not used and $2T_0 = h$, the formula for calculating the

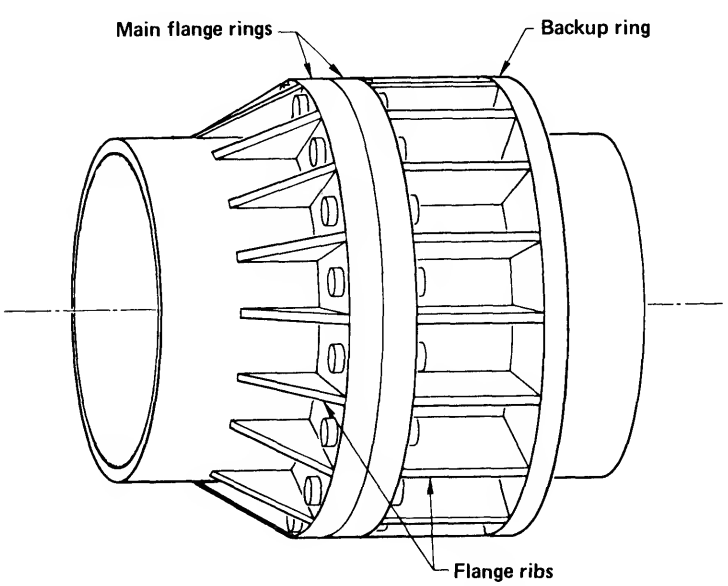

Fig. 33.13 Pipe flange geometry with rectangular and triangular ribs.